



## MEETING OF THE

# PLANS & PROGRAMS TECHNICAL ADVISORY COMMITTEE

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**Tribal Government Representative:** Andrew Masiel Sr., Pechanga Band of Luiseno Indians

**Ventura County:** Linda Parks, Ventura County • Glen Becerra, Simi Valley • Carl Morehouse, San Buenaventura • Toni Young, Port Hueneme

**Orange County Transportation Authority:** Art Brown, Buena Park

**Riverside County Transportation Commission:** Robin Lowe, Hemet

**Ventura County Transportation Commission:** Keith Millhouse, Moorpark

**Thursday, August 16, 2007  
10:00 a.m. – 12:00 p.m.**

**SCAG Offices  
818 West 7<sup>th</sup> Street, 12<sup>th</sup> Floor  
San Bernardino Conference Room  
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**Video Conference Location  
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<http://www.scag.ca.gov/rtptac/index.htm>

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# PLANS & PROGRAMS TECHNICAL ADVISORY COMMITTEE

## AGENDA

	PAGE#	TIME
<i>"Any item listed on the agenda (action or information) may be acted upon at the discretion of the Committee".</i>		
1.0 <b><u>CALL TO ORDER &amp; INTRODUCTIONS</u></b>	Ty Schuiling, Chair	
2.0 <b><u>PUBLIC COMMENT PERIOD</u></b> Members of the public desiring to speak on an agenda item or items not on the agenda, but within the purview of the Committee, must fill out and present a speaker's card to the assistant prior to speaking. A speaker's card must be turned in before the meeting is called to order. Comments will be limited to three minutes. The chair may limit the total time for all comments to twenty (20) minutes.		
3.0 <b><u>CONSENT CALENDAR</u></b>		
3.1 <u>Approval Items</u>		
3.1.1 <u>Approve Minutes of July 31, 2007</u> <b>Attached</b>		
4.0 <b><u>DISCUSSION ITEMS</u></b>		
4.1 <u>Standing Items</u>		
4.1.1 <u>Growth Forecast</u> <i>Continued discussion of growth alternatives development strategy.</i>	Frank Wen, SCAG Staff	20 min.
4.1.2 <u>Highways and Arterials</u> <i>No report</i>		
4.1.3 <u>Non-motorized / TDM</u> <i>No report</i>		
4.2 <u>2003 Base Year &amp; 2035 Baseline Modeling Result Comparison</u> <i>Continued discussion of performance measures.</i>	Tarek Hatata, System Metrics	20 min.

# PLANS & PROGRAMS TECHNICAL ADVISORY COMMITTEE

## AGENDA

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4.3 Framework Discussion on the  
Development of the RTP

**Tarek Hatata,  
System Metrics**

**20 min.**

**5.0 STAFF REPORT**

*No report*

**6.0 ADJOURNMENT**

The next meeting of the Plans & Programs Technical Advisory Committee will be held at the SCAG offices on Monday, August 27, 2007.

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Plans & Programs Technical Advisory Committee (TAC)  
of the  
Southern California Association of Governments

July 31, 2007

***Minutes***

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**THE FOLLOWING MINUTES ARE A SUMMARY THE PLANS & PROGRAMS TECHNICAL ADVISORY COMMITTEE (TAC) MEETING. THE AUDIO CASSETTE TAPE OF THE ACTUAL MEETING IS AVAILABLE FOR LISTENING IN SCAG'S OFFICE.**

The P&P TAC held its meeting at the SCAG Headquarters in Los Angeles. The meeting was called to order by Ty Schuiling, Chair, SANBAG.

**Members Present:**

Ty Schuiling, Chair	SANBAG
Miles Mitchell, Vice-Chair	LADOT
David Sosa	Caltrans-District 7
Tony Van Haagen	Caltrans-District 7
Diana Watson	Caltrans-District 7
Shefa Bhuiyan	Caltrans-District 8
Deborah Diep	CDR / CSU Fullerton
Tracy Sato	City of Anaheim
Catherine McMillan	CVAG
Jack Humphrey	Gateway Cities COG
Lori Huddleston	LACMTA
John Stesney	LACMTA
Eileen Schoetzow	LAWA
Michael Litschi	OCTA
Greg Nord	OCTA
Gail Shiimoto-Lohr	Orange County COG
Eyvonne Sells	SCAQMD
Jim Stewart	SCCED
Dana Gabbard	So. Ca. Transit Advocates
Kim Fuentes	South Bay Cities COG
Arnold Sherwood	University of California ITS

**Via Video Conference:**

Ken Lobeck	RCTC
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**SCAG Staff:**

Naresh Amatya	Jessica Kirchner	Frank Wen
Michael Armstrong	Philip Law	Akiko Yamagami
Peter Brandenburg	Jessica Meaney	John Fregonese, Consultant
Darin Chidsey	Jonathan Nadler	Richark Kuzmyak, Consultant
Andre Darmanin	Annie Nam	Steve Levy, Consultant
Pablo Gutierrez	Bev Perry	
Pria Hidisyan	David Rubinow	
Hasan Ikhrata	Marnie Tenden	
Mike Jones	Alan Thompson	

## **1.0 CALL TO ORDER AND INTRODUCTIONS**

Ty Schuiling, Chair, called the meeting to order at 10:15 am. Introductions were made.

## **2.0 PUBLIC COMMENT PERIOD**

There was no public comment.

## **3.0 CONSENT CALENDAR**

### **3.1 Approval Items**

#### **3.1.1 Approve Minutes of May 17, 2007**

Members reviewed minutes and recommended the following changes:

- page 4, paragraph 2, of the minutes as follows: “~~Ms. Deborah Diep, CDR / CSU Fullerton~~ Ms. Carla Walecka, Transportation Corridor Agencies, asked if in fact there’s action in October and the conformity budgets ....”
- ~~Yvonne~~ Eyvonne Sells, SCAQMD - correction in spelling of name.

*Motion was moved and unanimously approved with above-mentioned corrections.*

## **4.0 INFORMATION ITEMS**

### **4.1 Standing Items**

#### **4.1.1 Growth Forecast: The SCAG Regional Economy: The Growth Forecast Story and Implications for Land Use & Other Policies**

Steve Levy, Center for the Continuing Study of California Economy, presented members with an overview of the Growth Forecast, land use, and policy implementation. Mr. Levy began by stating that the SCAG region is projected to grow by 3 million added jobs which are consistent with the 6 million added residents to fill those jobs and will form 2 million households between 2005 and 2035. Mr. Levy further explained that jobs drive growth in population and households. About three-fourths of the growth that SCAG has projected would come if we kept pace with the nation. If economic competitiveness lags then the region can grow at a slower rate.

Mr. Levy also discussed the regional economic base and stated that the region's prosperity is dependent on its ability to attract companies in goods movement, entertainment, professional services, and on the policies that the region and the local communities adopt. Another point to note is that the aging baby boomers will be replaced by immigrants and their children in the region's labor force and housing markets. The policies which support jobs and income growth include infrastructure, workforce, housing, and quality of life. He further stated that regions attract jobs and people because they have good infrastructure, good education, and housing that meets the needs of a broad set of workers. Regions that are attractive in the sense of being a good place to live are exactly what you need to attract jobs and workers. Housing is also an economic issue as well as a social and land use issue.

Mr. Levy stated that if the region is going to have any kind of broad based and sustained prosperity, it needs to bring in additional sectors. The largest regional sectors are professional services, diversified manufacturing, wholesale trade, transportation, and tourism and entertainment. Most of the growth is expected to come from professional services, followed by wholesale trade and transportation.

Most job openings are projected to come from replacements and most of these openings do not require a four-year college degree. For every new job, there are 1.6 job openings from replacements. Mr. Levy added that the changes in age and ethnicity need to be factored into the decisions on urban form. The majority of the growth in the region is and will continue to be concentrated in the Hispanic population. Immigrants and their children and grandchildren will replace boomers in the 35 to 54 age groups. The second largest group in terms of population growth are those people who will be entering college and the workforce within the next 20 years.

John Fregonese, Fregonese and Associates, continued with the second part of this presentation and discussed the research that has been taking place at SCAG for the Regional Transportation Plan (RTP). As a result of the RTP workshops, the transit, city centers, and hybrid scenarios have been revisited. Mr. Fregonese stated that there was not a huge amount of benefit from the first runs but there are a few technical issues that are being revised. Revisions will also be made for scenarios that explore policy options. Mr. Fregonese stated that public policy has shifted within the last seven years and change has also occurred with transit-oriented development and increasing density in pocketed areas. He mentioned that the scenarios that he presented are meant to be viewed as lessons to be learned and does not suggest that they be adopted.

Mr. Fregonese continued to explain how these changes were developed. As a result, three scenarios were created that focus on allocating housing to transit stations. The first scenario would intensify development in the places where people travel the farthest to work and put them close to housing. The second then moves people to employment centers. The third scenario takes the best of both and does a hands-on scenario, or a hybrid transit and employment scenario.

Densities and redevelopment rates were redefined as well as development types. These development types are driven by buildings and in recent years more data is available for these buildings. Building data now exists of a building's design, its financials, and what it takes to actually build it. With this data, staff is then able to place different buildings around the region, model them, use them in visualizations, and develop summaries of what the building is and what it would cost. These development types have a lot of information that is useful and helpful when doing land use scenarios.

Mr. Fregonese provided illustrations of various development types. The City center, for example, has up to 65 units per acre and is a gross density which includes employment. City centers tend to be more employment-center heavy. Another development type is the transit station, which contains up to 85 units per acre. Town centers, main streets, and transit corridors are at about 21 units per acre. Mr. Fregonese mentioned that based on experience, most of these transit areas need higher densities to work and to be able to be developed without a subsidy. Interviews were conducted with nine local jurisdictions in order to review in detail what was forecasted in the growth forecast and what the jurisdictions are anticipating. Many interesting things were discovered, such that the Compass scenario was corridor-based and jurisdictions are actually planning on center-based scenarios. The centers that they are looking at are quite intense, more so beyond the workshop.

Mr. Fregonese explained the three test scenarios. Both the transit and the employment scenarios started with the workshop scenario and intensified development within areas designated as either transit areas or employment areas, depending on the scenario. Development areas along commute trips were decreased; this was a mathematical exercise. As discussed, the following policy tools were taken: the town center and the transit area. There was more detail on the hybrid scenario and looking at particular areas. This is just in reviewing the infill rates increase and the density rate increase.

After increasing housing densities within transit areas and employment centers, housing from other areas had to be reduced to maintain the SCAG forecast. For the hybrid, a composite scenario was developed by combining the transit and employment scenario; then, growth was manually redistributed based on several assumptions. Metrolink stations were also looked at as well as stations that provided opportunity for growth. Housing was allocated to nearby stations, and opportunities near stations were also reviewed. Growth was removed from low density single family areas not likely to be redeveloped. Development was taken out of steep slopes and outlying single-use development was scaled back. Very high-density development types were reduced from non-transit areas. The transit corridor type was eliminated when it wasn't near transit, and the jobs housing balance was adjusted within light rail transit areas by replacing some transit stations with city centers, adding jobs to some of the transit areas.

Mr. Fregonese stated that out of the three scenarios, the hybrid scenario worked best. A 6.5% reduction in VMT was achieved and a 10% reduction in delay. This is a pretty good outcome when you consider that there were no investments made to enhance this and no additional transit was added. Another item of note is that these were experiments and are not proposals.

Frank Wen, SCAG, presented the subcomponents for the 2007 RTP/EIR. The four subcomponents that are being reviewed in order to derive alternatives for the 2007 RTP/EIR are: (1) existing and planned transit stations and transit-oriented development, (2) employment centers, (3) intersections between a TOD and center, and (4) inter-county jobs housing balance.

#### 4.1.2 Growth Forecast: RTP Growth Scenario Development and Model Analysis

Rich Kuzmyak, Caliper Corporation, presented on the impact of the 4Ds on Blueprint Scenarios. Mr. Kuzmyak is leading a team that is trying to figure out what the effect of 4Ds on detailed land use is going to be on travel and air quality.

Mr. Kuzmyak discussed the 4Ds, which are: density, diversity, design and regional accessibility. The 4Ds include local land use, which is close to home, and generally intra-zonal. This is generally thought of as density, which usually spreads as households per acre. Diversity refers to the mix of stuff that is there and the relative balance. Design is from the standpoint of the person that is around there, and refers to walkability and connectivity. The fourth "D" is regional accessibility and relates to being outside of your neighborhood. According to Mr. Kuzmyak, many studies have shown that if you have better land use you will find that households own fewer autos and more local opportunities, which lessen the need for autos. The fewer autos you own per driver, the fewer miles households tend to travel; more trips are made by walking, and the auto trips that are made are shorter. More importantly, local land use provides more alternatives for non-



work travel. This is a real change in perspective for all of us as 75% of VMT is non-work and is very conditional on land use.

Mr. Kuzmyak also discussed the key findings from the Solimar South Bay Cities Study. The study looked at a number of centers and at a set of corridors within the South Bay. The study data that was provided was a three-year study and included survey information from Old Town Torrance, Inglewood downtown, and Riviera Village, which are very different demographics. The study attempted to pull households from within a quarter mile of the downtown center and within a half mile outer core to see if their behavior was any different in terms of their willingness to walk.

Kim Fuentes, South Bay Cities COG, stated that she did not recall the numbers being so high on the final report for the number of bikers and walkers. She stated that the presentation did include the success of the centers' high capture rate and that the diversity of the mix was very important. In some cases, the design was more important, but the study also found that some of the centers did have a lot of people that walked and biked. At the same time, this could have been due to the type of resident that lived in the area.

Michael Litchi, OCTA, mentioned an article that appeared some time ago in the LA Times which questioned the progress of TODs. The article stated that residents that are living at TODs still continue to drive. Mr. Litchi stated that he was uncertain as to how realistic the assumptions are regarding VMT and what assumptions are being made in terms of what transit service will be needed and how many cars per household. Mr. Fregonese stated that there was no benefit made from transit and the change occurred from driving behavior due to location. The TODs that were chosen happen to be close to employment; therefore it is more likely that they will find a way to satisfy their needs closer to home. This was only a change in driving behavior.

Ms. Fuentes added that in the South Bay Cities study people were not asked why they did not walk. They were asked how often, why do you go, and how do you get there. Mr. Kuzmyak agreed and mentioned that this is why the multi-area approach should be made.

Ms. Shiimoto-Lohr stated that the issue with Mr. Kuzmyak's presentation is communicating all of the material, which is very difficult to present. Ms. Shiimoto-Lohr recommended that the information be condensed to a site-specific example where the information is presented from a case study perspective. This would enable the TAC with the opportunity to react to some of the changed variables.

Mr. Fregonese stated that the intention is to make this a visual and understandable presentation at a policy level. He agreed that the presentation was very technical and is headed towards a case study approach to show what it would look like under the two scenarios, and by showing visualizations of what buildings would look like.

Mr. Schuiling added that it would be very helpful if case studies were developed for each of the parts of the region. Mr. Fregonese mentioned that staff is currently working on a case study in SANBAG which can demonstrate exactly how a local initiative plays into a regional policy.

Deborah Diep, CDR / CSU Fullerton, asked about the difference between the non-work versus work reduction. Is a majority of this transit or development, and are all of the scenarios that are shown a reduction more so in work or non-work? Mr. Wen stated that he was not certain. Ms. Diep stated that this information would be helpful to have.

Ms. Shiomoto-Lohr asked if a follow-up presentation is going to be made to the TAC and when will the information be presented to the policy committee for endorsement of a specific alternative? Mr. Wen stated that another TAC meeting should be scheduled for late August. Staff is also trying to come up with the recommended growth visioning scenarios which will be presented to the CEHD on August 30<sup>th</sup>. Workshops will also be scheduled after the release of the Draft Plan in October.

Mr. Schuiling asked what Mr. Wen envisioned as being the plan or the alternatives to the plan? Mr. Wen mentioned that from the growth perspective, the baseline and the technical growth forecast will be incorporated with all local input. On the policy side, the updated 2004 RTP will be ready, as well as the two growth visioning scenarios for a total of four alternatives from the growth perspectives. There may also be more alternatives on the infrastructure side.

4.1.3 Highways and Arterials  
*No report*

4.1.4 Non-motorized/TDM  
*No report*

4.2 2003f Base Year & 2035 Baseline Modeling Result Comparison

*Due to time constraints this item was postponed until the next P&P TAC meeting.*

#### 4.3 Proposed Goods Movement Control Measures

Tarek Hatata, System Metrics, reported that his presentation would include feedback that had been received from various stakeholders. A decision was made to present stakeholder groups with a series of investment packages showing the pros and cons in each package. These packages will include both mobility and air quality, and all stakeholders must benefit from and contribute to the investment package.

Mr. Hatata explained the investment package options. The first investment package will include rail expansion, grade separation, and electrification of rail. The second package includes rail expansion and grade separations as well as engine upgrades to Tier 4. Mr. Hatata noted the challenges to both of these investment options. Beginning with the first option, the total cost is \$4.6 billion and is consistent with the Multi-County Goods Movement Action Plan. Almost \$800 million of the \$4.6 billion has been committed to this project.

The rail expansion and improvements are noted on the map; more tracks in many cases will go from double to triple tracks and in some cases from triple to quadruple. These serve primarily the east-west corridor.

Mr. Hatata described the three phases planned for electrification. The first phase is the heaviest one and is a 250-mile stretch with 360 new locomotives at a cost of \$3.4 billion. This would mean that the railroads would have to stop, exchange engines, go down the Cajon Pass using diesel, and then start with electric. The trains would have one diesel locomotive and two electric, which is an operationally complicated issue for railroads.

Phase 2 would add another 170 miles and 360 locomotives, and would cost \$2.5 billion. The reason for additional locomotives is because the return trip would be on electricity, which requires three electric locomotives per rail. Currently, Cambridge Systematics is reviewing this and will provide an assessment of what is realistic to implement a project like this. Phase 3 would add 40 miles and 55 locomotives at \$53 billion.

Mr. Hatata stated that the EPA is proposing exhaust emission standards which are expected to be as follows:

1. Tightening emission standards for existing locomotives when they are remanufactured.
2. Setting engine-out emission standards for Tier-3 locomotives to phase in starting 2009.
3. Setting engine-out emission standards for Tier-4 locomotives to phase in starting 2014.

He stated that accelerating to Tier-3 upgrades would require some incentive to the railroads because the railroads are not required to start until 2009. Accelerating to Tier-4 is also possible, but that cannot start until 2014. Either of these options would cost \$2 billion.

Mr. Hatata discussed the cost effectiveness of the 2014 scenario. He stated that if the number one goal is 2014, then a NOx reduction will be achieved. The cost per daily ton of NOx reduced is about \$65,000 if all three electrification phases are complete versus only Tier-3, which would cost \$130,000 per daily ton. For PM 2.5, the amounts are reversed because the Tier-3 does better than PM 2.5. In 2020, the Tier-4 scenario becomes significantly more cost effective. Mr. Hatata described this as being a policy perspective issue.

Mr. Hatata explained the advantages and disadvantages of electrification. He stated that the technology exists for possible implementation by 2014, and helps meet attainment needs for 2014 and beyond, such as the 2023 ozone attainment. The disadvantages include a cost of \$6 billion and are likely to be higher given the recent cost escalations. Another disadvantage is that it's disruptive to railroad operations. This scenario is unlikely to gain partial funding from the railroads and implementation by 2014 is extremely challenging.

The advantages and disadvantages of locomotives include a lower cost of \$2 billion versus the estimated \$6 billion with electrification. Railroads will eventually upgrade their locomotives, and this is likely to accelerate upgrades with proper incentives. There is a greater potential for partial funding by railroads and similar NOx and PM reductions by 2020. A disadvantage is that it can't be done by 2014 since Tier-4 technology is not available for 2014 implementation and does not help the region meet the 2014 attainment goals.

Discussion followed as to the availability and manufacturing of Tier-3 locomotive engines.

Jim Stewart, SCCED, asked if the global warming advantages of electrification could be included. Mr. Hatata stated that the environmental consultant is attempting to figure out the emissions from the power generation facilities that would electrify the railroads and is almost certain that they will be tiny compared to the diesel emissions regardless of whether it's compared to Tier-3 or Tier-4.

#### 4.4 Aviation/Ground Access Report

*Due to time constraints this item was postponed until the next P&P TAC meeting.*

### 5.0 STAFF REPORT

*There was no staff report.*

### 6.0 ADJOURNMENT

Mr. Schuiling adjourned the meeting at 1:06 pm. The next meeting of the Plans & Programs Technical Advisory Committee will be held at SCAG's Los Angeles office on August 16, 2007.